BTEC Assignment Brief

Qualification	Pearson BTEC International Level 3 Subsidiary Diploma in Applied Science Pearson BTEC International Level 3 Foundation Diploma in Applied Science Pearson BTEC International Level 3 Diploma in Environmental Science Pearson BTEC International Level 3 Extended Diploma in Environmental Science
Unit number and title	**Unit 10: Climate Change**
Learning aim(s)	**A:** Understand the fundamental aspects of the Earth's atmosphere and its history
Assignment title	**'Billions of years of atmospheric development'**
Assessor	
Issue date	
Hand in deadline	

Vocational Scenario or Context	You have been accepted to a junior position with a new quarterly science journal and magazine called '*Life on Earth'* which is designed to introduce all generations of the population to important aspects linked to the Earth's physical development and the natural world. Your editor has asked that you write part of an opening introduction to the new journal which focuses on the early atmosphere and how it has changed over time to the present day.

Task	Produce a draft outline of the opening to your work which **describes** our current understanding of the development of the early earth and how an early atmosphere was formed. You will need to include: ● Our understanding and theory of how the Earth evolved into a planet from nebulous material in space ● The present day theory of the early atmosphere composition and the chemicals it was made of before life developed ● The type of evidence in early sedimentary rocks which indicated the start of biological processes from chemical reactions and water You must also **discuss** how the Earth's atmosphere changed and the timescale involved. This will include: ● Evidence of photosynthesis and changes to the atmosphere after biological life developed ● The changes to the Earth's crust over geological time ● Changes to volatile compounds over time ● Definitions and **explanations** of – o Sources o Sinks o Residence time **Evaluate** our current understanding of the Earth's atmospheric composition

	as it is at present in terms of: ● Gases present ● Extent of the 5 atmospheric layers ● Composition of the 5 atmospheric layers **Compare** the present atmosphere composition with our present understanding of earlier atmosphere changes and account for the differences.
Checklist of evidence required	A **report** which includes: ● A full **description** of the Earth's early atmosphere and its development and theory of how the Earth formed ● The evidence of early biological activity ● Development of the atmosphere after the introduction of biological life, changes in gases and the Earth's crust ● An explanation of the Earth's present day atmosphere

Criteria covered by this task:	
Unit/Criteria reference	To achieve the criteria, you must show that you are able to:
A.D1	Evaluate the evidence and understanding of atmosphere changes over time
A.M1	Discuss the differences between the early and present day atmospheres
A.P1	Explain the evidence and theories related to the composition of the early atmosphere
Sources of information to support you with this Assignment 1. 1. 2.	www.britannica.com › topic › evolution-of-the-atmosphere-1703862 teachertech.rice.edu › Participants › louviere › history en.wikipedia.org › wiki › Atmosphere_of_Earth www.universetoday.com/26659/earths-early-atmosphere/ revisionworld.com › gcse-revision › changes-earth-and-atmosphere